

Claims:

1. Isolated nucleic acid molecule encoding a wild type nucleus derived moss expression promoting region (MEPR).
2. Isolated nucleic acid molecule according to claim 1, characterised in that the MEPR is selected from MEPRs of Physcomitrella, Funaria, Sphagnum, Ceratodon, Marchantia and Sphaerocarpos, preferably of Physcomitrella patens, Funaria hygrometrica and Marchantia polymorpha.
3. Isolated nucleic acid molecule according to claim 1 or 2, characterised in that the MEPR is selected from the Seq. ID Nos. 1 to 27 or expression promoting fragments thereof.
4. Isolated nucleic acid molecules according to any one of claims 1 to 3, characterised in that it comprises a moss promoter and preferably a 5'-UTR region and/or a 5'-intron and/or a 3'-UTR
5. Isolated nucleic acid molecules according to any one of claims 1 to 4, characterised in that the MEPR has an expression promoting activity being at least equal to the expression promoting activity of cauliflower mosaic virus (CaMV) 35S promoter.
6. Isolated nucleic acid molecules according to any one of claims 1 to 5, characterised in that the MEPR has an expression promoting activity being at least 200 %, preferably being at least 500 %, especially being at least 1000 %, of the expression promoting activity of cauliflower mosaic virus (CaMV) 35S promoter.
7. Isolated nucleic acid molecules according to any one of claims 1 to 6, characterised in that it further comprises a coding region for a recombinant polypeptide product, said coding region being under the control of the MEPR.
8. Isolated nucleic acid molecules according to any one of claims 1 to 7, characterised in that it further comprises a selection marker.

9. Isolated nucleic acid molecules according to any one of claims 1 to 7, characterised in that it further comprises sequences which are homologous to genomic sequences of the species to be transformed thereby allowing targeted integration in this species.

10. Isolated nucleic acid molecules according to any one of claims 1 to 5, characterised in that is provided as an antisense or ribozyme molecule

11. Process for the expression of a recombinant polypeptide product in an eukaryotic host cell comprising the following steps:

- providing a recombinant DNA cloning vehicle comprising an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 and optionally a coding region for said recombinant polypeptide product, said coding sequence being under the control of the MEPR of said nucleic acid molecule in said host,
- transforming said eukaryotic host cell which does not naturally harbour said coding sequence in a way that it is under the control of said MEPR,
- culturing the transformed eukaryotic host cell in a suitable culture medium,
- allowing expression of said recombinant polypeptide and
- isolating the expressed recombinant polypeptide.

12. Method according to claim 11, characterised in that said eukaryotic host cell is selected from plant cells, preferably moss cells, especially *Physcomitrella patens* cells.

13. Method according to claim 11 or 12, characterised in that said host cell is a protonema moss tissue cell.

14. Method according to any one of claims 11 to 13, characterised in that the culture medium is free from added phytohormones thereof.

15. Method according to any one of claims 11 to 14, characterised in that the cell is selected from moss cells of the group *Physcomitrella*, *Funaria*, *Sphagnum*, *Ceratodon*, *Marchantia* and *Sphaerocarpos*.

16. Method according to any one of claims 11 to 15, characterised in that the host cell expresses said recombinant polypeptide product transiently.

17. Use of an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 for industrially producing a polypeptide, especially for providing recombinant cells producing said polypeptide.

18. Use of an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 for expression of a moss polypeptide, the expression of said moss polypeptide being not naturally controlled by said MEPR, especially for providing recombinant moss cells expressing said polypeptide.

19. Use of an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 for screening and defining consensus sequences for expression promoting regions.

20. Use of an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 for recombinant expression of posttranslationally modifying proteins, especially for the production of posttranslationally modified proteins.

21. Use of an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 for in vitro expression of recombinant proteins.

22. Use of an isolated nucleic acid molecule encoding an MEPR according to any one of claims 1 to 10 for recombinant expression of metabolism modifying proteins.